COMPLETE LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1-20 (canceled)

Claim 21 (original) A method for preparing expandable graphite flake exhibiting one or more improved exfoliation characteristics, which comprises:

(a) contacting graphite flake with an organic expansion aid;

(b) subjecting said graphite flake to an electrolytic oxidation treatment with an aqueous intercalant solution comprising 10-75% sulfuric acid to provide intercalated graphite flake; and

(c) recovering said intercalated graphite flake.

Claim 22. (currently amended) A method according to claim 21 wherein the graphite flake is contacted with said expansion aid prior to subjecting said graphite flake to said electrolytic oxidation treatment.

Claim 23 (currently amended) A method according to claim 21 wherein the graphite flake is contacted with said expansion aid by dissolving said expansion aid in said aqueous intercalant solution prior to subjecting said graphite flake to said electrolytic oxidation treatment therein.

Claim 24 (original) A method according to claim 21 wherein said expansion aid comprises a carboxylic acid soluble in said aqueous intercalant solution in an amount effective to enhance exfoliation.

Claim 25 (original) A method according to claim 24 wherein said carboxylic acid comprises a carboxylic acid selected from the group consisting of lower aliphatic carboxylic acids and dicarboxylic acids and mixtures of these.

Claim 26 (original) A method according to claim 25 wherein said acid comprises a carboxylic acid of the formula $H(CH_2)_nCOOH$ wherein n is a number of from 0 to about 5.

Claim 27. (original) A method according to claim 21 wherein said intercalant solution contains from about 30 to about 85% water by weight of the solution.

Claim 28. (original) A method according to claim 27 wherein said intercalant solution contains from about 50 to about 75% water by weight of the solution.

Claim 29. (original) A method according to claim 21 wherein the electrolytic oxidation treatment comprises passing a current between a cathode and the graphite flake as an anode at an anode current density of from about 0.02 to about 0.06 amps per square centimeter.

Claim 30. (original) A method according to claim 21, wherein said expansion aid comprises an amount effective to enhance exfoliation of from about 1 to 10% of a carboxylic acid soluble in said aqueous intercalant solution, and said intercalant solution contains from about 30 to about 85% water, all percentages based on the weight of the solution.

Claim 31 (currently amended) A method according to claim 21 wherein the electrolytic oxidation treatment comprises passing a current between a cathode and the ~~intercalant wet~~intercalated graphite flake as an anode at a cell voltage of from about 1 to about 6 volts.

Claim 32 (currently amended) A method for preparing expandable graphite flake exhibiting one or more improved exfoliation characteristics, which comprises:

(a) contacting graphite flake with an organic expansion aid comprising a carboxylic acid selected from the group consisting of lower aliphatic carboxylic acids and dicarboxylic acids and mixtures of these, said contacting being prior to subjecting said graphite flake to electrolytic oxidation treatment;

(b) then, subjecting said graphite flake to an electrolytic oxidation treatment using an aqueous, intercalant solution comprising about 10-75% sulfuric acid to provide intercalated graphite flake, by passing a current through the solution between a cathode and graphite flake wet with the intercalant solution as an anode at a current density of from about 0.02 to

about 0.06 amps per square centimeter and at a cell voltage of from about 1 to about 6 volts; and

(c) recovering said intercalated graphite flake.

Claim 33 (original) A method according to claim 32, wherein said expansion aid comprises a carboxylic acid soluble in said aqueous intercalant solution and is employed in an amount of from about 1 to about 10%, both percentages based in the weight of the intercalant solution.

Claim 34-40 (withdrawn)